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153484

SITE INSPECTION WORK PLAN

FOR:

PTs Showclub / Sauget-Monsanto Landfill

PREPARED BY

PRE-REMEDIAL UNIT
DIVISION OF LAND POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62794

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CONTENTS

I. SITE INFORMATION

I. GENERAL

Site Name: P.T.s Showclub-AKA Sauget/Monsanto Ldfl. ILD# 984809293

Site Location: 400 Monsanto Avenue, Sauget Illinois Located near the Mississippi River between the Terminal Railroad Association Railroad
and the Illinois Central Gulf Railroad in
Sauget, IL 62201, St. Clair County

Work Plan prepared by: Kimberlee A. ~~Nika~~ Hubbert
Work Plan approved by: _____

Estimated inspection date: June ~~8~~ 22+23, 1993

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II. THE ASSIGNMENT (briefly describe the objectives of the inspection and how they are going to be accomplished).

The purpose of a Screening Site Inspection is to document site contamination and identify the potential migration pathways contaminants may be transported. Soil/sediment samples will be collected during the SSI for analysis. The results will be used to evaluate the impact that past disposal practices are having on the surrounding environment and population.

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III. SITE DESCRIPTION (briefly describe the site, including location, unique geological features, source(s) of contamination, methods of disposal and current status of activities).

The site is a triangularly-shaped landfill covering approximately 22.5 acres and existing west of Illinois Route 3 and north of Monsanto Avenue in Sauget, Illinois. The former landfill is located within the boundaries of the heavily industrialized village and P.T.s Showclub is situated on the surface of the landfill. The site lies within the southern part of

Section 23 and the northern part of Section 26 of Township 2 North, Range 10 West of the Third Principle Meridian in St. Clair County. The site is bounded by the Terminal Railroad Association railroad to the west, on the south by Monsanto Avenue, and Illinois Central Gulf Railroad to the east. The railroads converge to delineate the northern boundary, thus creating the triangulated site. Access to the site is not controlled. Geologically, the site is in an area known as the American Bottoms. ISGS well logs indicate that the upper stratigraphy in this area consists of 70-120 feet of unconsolidated alluvium and glacial outwash overlying Mississippian-aged limestone and sandstone formations (Ste. Genevieve and St. Louis Limestones). The valley fill deposits are composed of two formations, the uppermost being the Cahokia Alluvium followed by the Mackinaw Member of the Henry Formation.

IV. SITE HISTORY (briefly describe the history of the site including previous owners, reported injuries, complaints, govt. action).

According to information available to the Agency, P.T.s Showclub/Sauget-Monsanto Landfill operated as an IEPA permitted landfill from January, 1973 until 1984. In 1972, Paul Sauget of Sauget and Company entered into a lease agreement with Union Electric Company to operate a waste disposal facility at this site. In January of 1973, IEPA issued an operating permit to Sauget and Company to accept only non-hazardous solid waste from Monsanto. Sauget and Company subsequently applied for, and was granted, a supplemental permit in 1974 which allowed acceptance of general waste and diatomaceous earth filter cake from Edwin Cooper, Incorporated (now Ethyl Corporation).

The IEPA began conducting routine inspections of the facility in 1974, at which time no violations were evident. In October, 1975, an inspector observed a small amount of yellowish, tar-like liquid in an area adjacent to several crushed fiber drums which were labelled "Monsanto ACL-85, Chlorine Composition." Sauget and Company and Monsanto were subsequently notified of this permit violation, and the matter was not further addressed. In December, 1977, an inspection revealed the disposal of approximately 25 metal containers (12-15 gallon) full of phosphorus pentasulfide (P2S5), a flammable solid. IEPA required Monsanto to excavate and remove all of this material from the site, and to discontinue disposal of any chemical wastes or packages.

During the same inspection, IEPA became aware of another potential problem. A Southern Railway slag pile was being used for immediate and final cover material. Analysis of this slag showed it to be unsuitable cover due to its high permeability and heavy metal content. Cinders were also being used as cover material at Site P, thus posing the same problems as the slag, that is, increased surface water infiltration and the resulting potential for leaching heavy metals long with organic wastes into the groundwater.

IEPA inspections of the landfill in 1978 and 1979 indicated non-permitted disposal of Monsanto ACL filter residues and packages. The composition of this material is not known. According to the site operator at that time, this material would occasionally ignite when it came into contact with the filter cake waste from Edwin Cooper.

An Illinois-American Water Company distribution main was discovered in 1980 during a preparatory landfill excavation on the southern portion of the site. Following discovery of the water -line, plans and permits were modified to include no waste disposal within 100 feet of the line.

IEPA files contain quantities and characteristics for the Edwin Cooper filter cake that was disposed of at Site P, however, Monsanto's wastestream information was not made available to the state agency. Records indicate that approximately 117,000 cubic yards of Edwin Cooper filter cake was accepted. Based on EP toxicity results submitted in 1973, the filter cake was classified as non-hazardous special waste (authorization permit number 740017). Additional analytical data is available for filter cake composite sample from Edwin Cooper in 1979 which indicates elevated levels of lead at 18.4 parts per million (ppm) cadmium at 1.8 ppm, zinc at 7220 ppm and a pH of 11.22. No groundwater monitoring program has been established for Site P, nor have any wastes at the site been fully characterized.

Aerial photographs that predate the 1970's show no indications of previous waste disposal activities at the site.

V. PREVIOUS SAMPLING ACTIVITIES

In 1985, IEPA contracted Ecology and Environment, Incorporated (E&E) to investigate 12 suspected uncontrolled hazardous waste sites and six segments of Dead Creek in Sauget and Cahokia. Site P was among the 12 sites at which soil borings and subsurface soil samples were collected.

Analysis of four samples of subsurface soils collected from two soil borings revealed the presence of eight volatile compounds present in ample P1-53 and two volatile compounds present in P2-54. No volatiles were detected in samples P5-55 and P5-56.

Three semi-volatiles were detected in P1-53: phenol, 1,4-dichlorobenzene, and 1,2-dichlorobenzene. The following table summarizes the subsurface sample results for Site P:

Although no pesticides or PCBs were detected in the Site P subsurface samples, inorganic contaminants were found. An elevated concentration of lead was detected in sample P5-55 and elevated concentrations of cyanide were detected in samples P5-55 and P4-54. The lead concentration in P5-55 was 5-10 times background.

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II. SAFETY CONSIDERATIONS

I. PHYSICAL HAZARDS AT SITE (briefly describe any physical hazards that the inspection team may encounter at the site).

Embankments exist along the eastern and western boundaries of P, and could pose a possible hazard during sampling. Also, since sampling will occur during the early part of June, heat stress and thunderstorms may pose a potential threat to personnel. Procedures will be followed that will protect the team from any possible hazards.

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II. CHEMICAL HAZARDS AT SITE (briefly identify those chemicals that are known or are suspected to be present, include their state and physical characteristics).

Previous samples taken at the site have revealed subsurface contamination. The Agency drill rig will be assisting in subsurface sampling. Ambient air monitoring (Paul Takacs, IEPA using an HNu photo-ionization detector) during a June, 1991 sampling event at Site P revealed the presence of

organic volatiles up to 150 units above background in the east-central portion of the site. Other areas of the site were not screened.

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III. DERMAL AND RESPIRATORY PROTECTION (identify the level of personal protection that will be used, including anticipated modifications).

Level D protection will be used at all times, with continuous air monitoring during the sample collection. If an increase occurs, the following will be implemented: 0-5 units over background Level C

5-50 units over background Level B

50-500 units over background Level A

IV. EMERGENCY INFORMATION

Nearest Hospital: Centreville Township Hosp. Phone) 618/332-3060

Hospital Location: 5900 Bond Avenue For Emergency: 911

Centreville, Illinois

Ambulance Service: Bruns Ambulance Service Emergency: 911

Fire Service: Sauget Fire Department Emerg Phone:618-332-6600

Non-Emerg.Phone:618-332-6700

Police: Sauget Police Department-Emerg.Phone: 911

Non-Emerg.Phone:618-332-6500

State Police

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III. FIELD ACTIVITIES

I. TEAM ASSIGNMENTS

NAME	Responsibility
Kimberlee ~~Nika~~ Hubbert	Project Manager
Judy Triller	Chain of Custody
Greg Spencer	Sampler
Brad Taylor	Sampler
Lynette Koutnik	Sampler
Greg Dunn	Safety Officer/Geologist
Paul Mason	Drill Rig
Bill Walkenbach	Drill Rig
Bob Mathis	Drill Rig

II. FIELD WORK PROPOSED

(check all that apply)

	Activity	Procedures
_X_	Ambient Air Sampling (OVA,HNU,etc.)	IEPA Methods Manual pp.19-23
___	Groundwater Sampling	IEPA Methods Manual pp.1-5
_X_	Surface Water Sampling	IEPA Methods Manual pp.6-10
_X_	Soil/Sediment Sampling	IEPA Methods Manual pp.13-18
_X_	Tap Water Sampling	IEPA Methods Manual pp.11-12
_X_	Slope Determinations	IEPA Methods Manual pp.24-25
___	Water Level Measurements	IEPA Methods Manual p.31
_X_	Perimeter Survey	IEPA Methods Manual p.33
_X_	Site Inspection	IEPA Methods Manual pp.34-39
_X_	Soil Borings/Well Installation	IEPA Methods Manual pp.26-30
_X_	Public Interviews	IEPA Methods Manual p.40
___	Groundwater Flow Determination	IEPA Methods Manual p.32
_X_	Decontamination Procedures	IEPA Methods Manual pp.41-56
___	Others:	_____

IV. SAMPLING

I. PROCEDURES (briefly describe the procedures the inspection team will employ in their collection of environmental samples).

All samples will be collected in accordance with the Illinois Environmental Protection Agency's Site Inspection QAPP. Soil/ sediment samples will be collected with stainless steel spoons. Tap water samples will be collected directly from the spigot to the bottles

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II. LOCATION OF SAMPLES (identify the number of samples, their type and

their location. The attached map should identify these locations).

Sample #	Type	Location
X101-X112	Soil/Sediment/Boring	see attached map
G201	Groundwater	see attached map

Background yet to be determined.

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III. ANALYTICAL SERVICES (identify the laboratory that will perform the analysis of the samples taken at the site, include requested analysis)

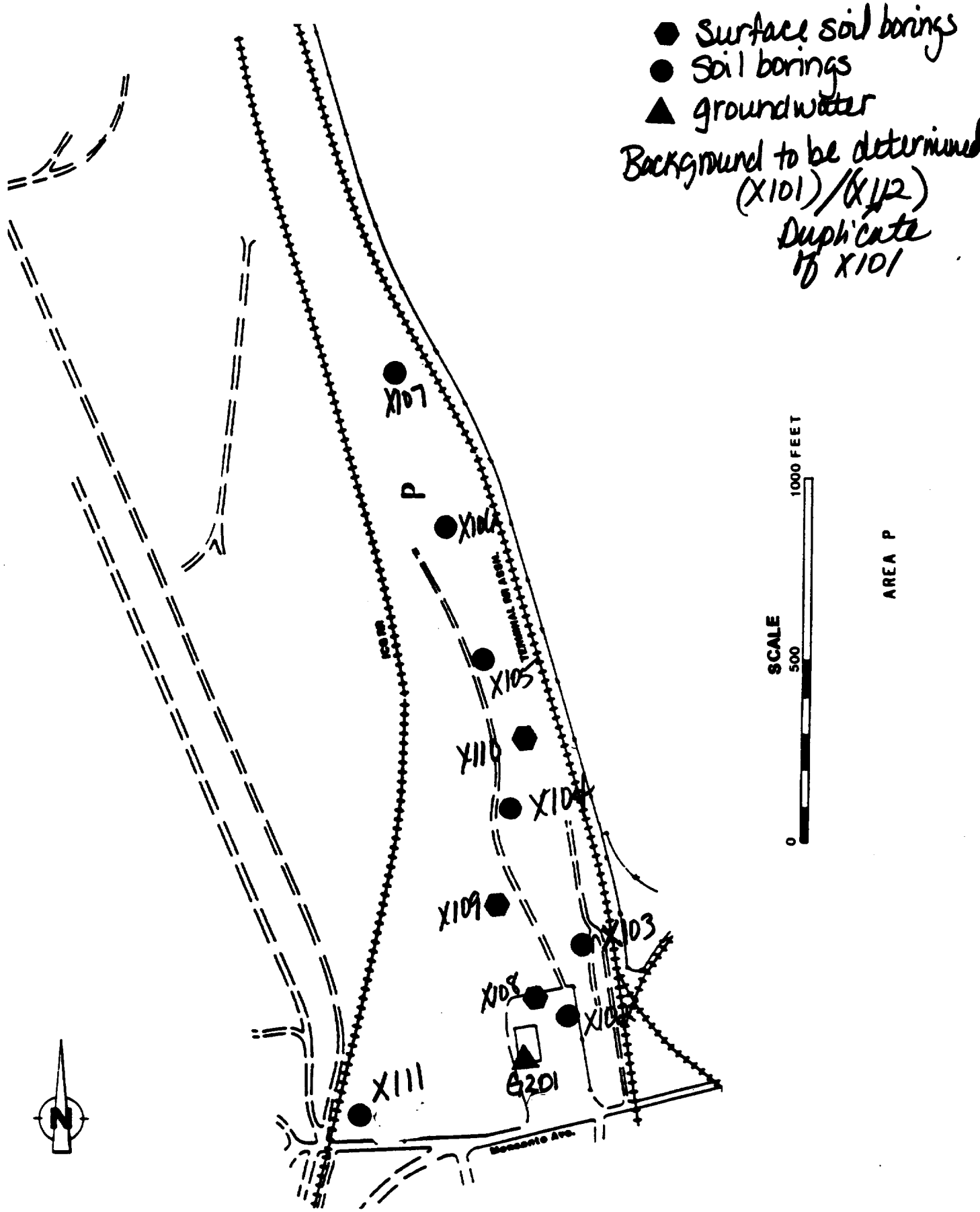
The target compound list will be run on all samples. All organic samples will be analyzed by IEPA's Springfield lab and all the inorganics will be analyzed by IEPA's Champaign Lab.

ATTACHMENT 1

RECORDS AND DOCUMENTATION (Check the records or documents that will

be generated during this project)

- X Work Plan
- X Safety Plan
- X Sampling Plan
- X Equipment Checklist
- X Log Book
- X Chain of Custody Records
- X Sample Analysis Records
- X Photographs
- X Drilling Logs
- X Correspondence
- X Personal Interview Tapes or Transcripts
- X Maps
- X Instrument Calibration Records
- _____ Procurement Documents
- X Site Inspection Form (2070-13)
- X HRS Scoring Package
- _____ Other (specify)
- _____ Other (specify)


Surface soil borings
Soil borings
groundwater
Background to be determined
(X101)/(X112)
Duplicate of X101
X107
P
X106
X105
X110
X104
X109
X103
X108
X102
X111
G201
Monsanto Ave.
SCALE
0
500
1000 FEET
AREA P
N